



# Vet Call

► by **Bob Larson**, professor of production medicine, Kansas State University

## Summer pneumonia of suckling calves

*Calves managed with their dams on grass pastures are considered to be at low risk for developing pneumonia because they are not facing any of the risks typically associated with bovine respiratory disease (BRD) (i.e., trucking, commingling, diet change, etc.). However, every year, outbreaks of “summer pneumonia” in calves occur in some herds. The viruses and bacteria that are associated with summer pneumonia of suckling calves are very common, and it is assumed they are present in every herd of cattle. Therefore, these disease-causing germs are only a problem if they are able to multiply in the lungs to the point they cause enough damage for the calf to show signs of illness.*

### Necropsy any losses

Even though the well-known stresses that often contribute to pneumonia in weaned calves are not present in suckling calves on pasture, stresses such as dust, temperature swings between afternoon highs and nighttime lows, excessively high or low temperatures, or limited forage are believed to increase the risk of summer pneumonia.

Because cattle grazing pastures are not typically observed daily, the first sign of problems may be finding one or more dead calves with other calves showing signs of pneumonia, such as rapid breathing, laying down and being reluctant to rise, and having a high rectal temperature.

I recommend that a necropsy be performed on calves that are found dead in the pasture in order to look for signs of pneumonia or other potential causes of death. A number of other causes of loss in suckling calves — such as blackleg, sudden death caused by *Clostridium perfringens*, trauma and digestive tract disease — can be differentiated from pneumonia by a necropsy examination. In some situations, tissue samples may be sent to a diagnostic laboratory for further investigation.

### Treatment and prevention

Calves that exhibit signs of pneumonia should be treated with injectable antibiotics to combat bacterial causes of respiratory disease. If treated early enough in the disease process, many calves are likely to recover; however, calves with advanced lung damage may not respond to treatment.

If the pneumonia is caused by a virus such as bovine respiratory syncytial virus (BRSV), antibiotic treatment will not be a directly effective treatment. In addition to antibiotic treatment, young calves with pneumonia should be protected from weather extremes, dusty conditions and poor forage. This may require moving them and their dam to a new pasture or grass trap.

Because a number of different bacteria and viruses can cause pneumonia in suckling calves, prevention is focused on protecting calves from environmental stress, ensuring that adequate forage is

available for the dam and calf, as well as maintaining good herd immunity with available vaccines. Some veterinarians recommend that herds with a history of summer pneumonia vaccinate young calves at “turnout” or “branding time” with vaccines against the viruses infectious bovine rhinotracheitis (IBR), bovine viral diarrhea (BVD), parainfluenza 3 (PI<sub>3</sub>), and bovine respiratory syncytial virus (BRSV), as well as bacteria associated with pneumonia, such as *Mannheimia haemolytica*, *Pasturella multocida* and *Histophilus somni*.

The theory behind this strategy is that summer pneumonia is most likely to occur as the immune protection from the dam that the calf received in colostrum is declining and before the calf develops its own immunity to common pneumonia-causing germs. The specific vaccines that you should consider should be decided upon by working with your veterinarian to identify your risk and likely effectiveness of calf vaccinations. Following the label directions and working with your veterinarian will help guide the selection of the type and timing of vaccination to reduce the risk of summer pneumonia.

### Summary

It may not be possible to completely avoid the risk of an outbreak of pneumonia in suckling calves, but focusing on good overall health of the cows and calves — by meeting the herd’s nutritional needs, providing a good environment, and timely use of vaccinations in the cows and calves — is a good strategy. If calves are affected with pneumonia while suckling their dams on summer range, they should be given the best possible care and treated with appropriate antibiotics.

No one likes dealing with summer pneumonia of calves, but working to decrease the risk and being prepared to recognize and treat cases early are the best methods to be prepared to minimize losses.

E-MAIL: [rlarson@vet.ksu.edu](mailto:rlarson@vet.ksu.edu)